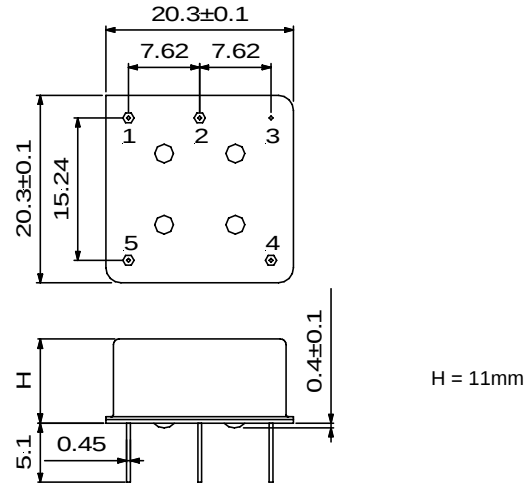


STRATUM III & IIIE OCXO

TYPES DFO 20-KH (5 V) & DFO 20-LH (3.3 V)

FEATURES
10 to 25 MHz
Stratum IIIE compliant over -40 to 85°C
Stratum III compliant over -40 to 85°C
APPLICATIONS
Stratum III & Stratum IIIE



Function	DFO 20
Vcc	1
Output	2
GND	3
N.C.	4
N.C.	5

TYPE	DFO 20-KH	DFO 20-LH
Frequency Range	10 to 25 MHz	
Standard frequencies	12.8, 16.384, 19.44 20 & 25 MHz	

ELECTRICAL SPECIFICATIONS		
supply voltage	5 V $\pm$ 5 %	3.3 V $\pm$ 5 %
supply current (no load) @ 25°C	$\leq$ 250 mA	$\leq$ 300 mA
supply current during warm up	$\leq$ 500 mA	$\leq$ 800 mA
output load	HCMOS 15 pF or 2 TTL	HCMOS 15 pF or 2 TTL
duty cycle @ 2.5 V	40/60...60/40 %	40/60...60/40 %
rise & fall times (10 to 90%)	$\leq$ 10 ns	$\leq$ 10 ns
high/low levels	$\geq$ 4.5 V / $\leq$ 0.5 V	$\geq$ 2.7 V / $\leq$ 0.5 V
SSB phase noise (1 Hz BW) @ 1 Hz	-95 dBc/Hz	-95 dBc/Hz
(typical @ 12.8MHz) @ 10 Hz	-120 dBc/Hz	-120 dBc/Hz
@ 100 Hz	-140 dBc/Hz	-140 dBc/Hz
@ 1 kHz	-145 dBc/Hz	-145 dBc/Hz
warm up time to reach $\leq 1 \times 10^{-7}$	≤ 5 min @ 25°C ref @ 1 hr frequency	≤ 5 min @ 25°C ref @ 1 hr frequency

FREQUENCY STABILITY			detailed tolerances after 30 days of operation						
type	temperature range	model code	stability versus:			overall stability	Holdover stability	24 hrs drift	calibration @ 25°C
			temperature	Vcc $\pm$ 5 %	ageing				
Telcordia GR-1244 CORE Stratum III/IIIE or ITU-T G.813 option 1									
all types	-20 to 70°C	CS3	$\leq \pm 0.28$ ppm	$\leq \pm 1 \times 10^{-8}$	$\leq \pm 3.5$ ppm/15 years	$\leq \pm 4.6$ ppm/15 years	$\leq \pm 0.37$ ppm	$\leq \pm 4 \times 10^{-8}$	$\leq \pm 5 \times 10^{-7}$
	-40 to 85°C	ES3							
	0 to 70°C	BS3E	$\leq \pm 1 \times 10^{-8}$	$\leq \pm 2.5 \times 10^{-9}$	$\leq \pm 3.5$ ppm/15 years	$\leq \pm 4.6$ ppm/15 years	$\leq \pm 12 \times 10^{-9}$	$\leq \pm 1 \times 10^{-9}$	$\leq \pm 5 \times 10^{-7}$
	-40 to 85°C	ES3E							

DEFINITIONS	
24 hours drift	GR-1244-CORE
24 hours holdover mode	Over full temperature range and Vcc $\pm$ 1 % (CS3 & ES3), and Vcc $\pm$ 0.25 % (BS3E)

ORDERING CODE	type + option code + frequency + model code + voltage value
Example	DFO 20-LH 12.8 MHz BS3E